```
% Fixed-Point Method for function F(x)=e^x+2^(-x)+2*cos(x)-6
clc;
clear all;

% Inputs: p0, tol, N0
tol = 1e-5;  % error tolerance
N0 = 500;    % maximum number of iteration
p_n = 1.5; % starting point
p_n_1 = 1;
p_0=1;

% Start Iterating
j = 2;
p = 1.82938360193385;
F = @(x) exp(x)+2^(-x)+2*cos(x)-6;

% This is a shorter way of writing:
%
% function output = F(x)
%     output = e^x+2^(-x)+2*cos(x)-6;
% end

while j < N0
      p_0=p_n;
      p_n = p_n-F(p_n)/((F(p_n)-F(p_n_1))/(p_n-p_n_1));
  if abs(p-p_n)<tol
      % close enough to actual root, stop
      break;
  else
      p_n_1=p_0;
      j = j + 1;
  end

end

fprintf('Iteration number = %d \n', j);
fprintf('p_n = %.4f \n',p_n);
fprintf('Error = %.4e \n', abs(p_n-p));
```